NON-PUBLIC?: N
ACCESSION #: 8904140432
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Fermi 2 PAGE: 1 OF 3

DOCKET NUMBER: 05000341

TITLE: Manual Reactor Scram and Turbine Trip Due to High Turbine Bearing Vibration
EVENT DATE: 03/07/89 LER #: 89-007-00 REPORT DATE: 04/06/89

OPERATING MODE: 1 POWER LEVEL: 100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Patricia Anthony, Compliance Engineer TELEPHONE: 313 586-1617

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE TO NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On March 7, 1989, the operators observed an increasing trend in the vibration of the number 8 bearing on the main turbine generator. Attempts to reduce the vibration by reducing the turbine load were unsuccessful. Therefore, the reactor was scrammed and the turbine shutdown in accordance with the site procedure. All systems responded per their design during the scram.

The turbine was balanced during the subsequent outage. During the first refueling outage, parts of the turbine will be disassembled and/or inspected.

END OF ABSTRACT

Initial Plant Conditions:

Operational Condition: 1 (Power Operation)
Reactor Power: 100%

Reactor Pressure: 997 psig
Reactor Temperature: 537 degrees Fahrenheit
Description of Event:

On March 7, 1989 at 1952 hours, the operators observed an increasing trend in the vibration of the number 8 bearing of the main turbine generator (TA)(TRB)!.

In an attempt to reduce the vibration, the operators reduced turbine load, but this did not reduce the vibration. The vibration on bearing number 8 reached 10.8 mils. In the interim, vibration on bearing number 10 reached 10.5 mils and vibration on bearing number 9 reached 9.6 mils. The Nuclear Shift Supervisor directed the reactor shutdown in accordance with the site procedures. A scram was manually initiated at 2005 hours. Following the reactor scram, the turbine was manually tripped. The control rods inserted per design and no problems were encountered during the scram.

Cause of Event:

The specific cause of the high vibration on bearing number 8 has not been determined. In order to compensate for the high vibration, the turbine was balanced in the subsequent outage. Since returning to full power operation, the vibration on all bearings has been reduced to acceptable levels.

Analysis of Event:

The action taken by the operators was prudent and ensured the safety of the plant and its personnel. Since the systems initiated by the manual scram responded per their design, there vas no affect on the health and safety of the public due to this event.

Corrective Actions:

As previously mentioned, the turbine was balanced during the subsequent outage and since returning to full power operation, vibration on the bearings is at acceptable levels.

In order to further evaluate the cause of the high vibration being experienced on some of the turbine bearings, a disassembly and/or inspection of portions of the turbine is planned for the first refueling outage.

Previous Similar Events:

In Licensee Event Report 88-030, an automatic reactor trip due to high turbine

bearing vibration vas described. In this instance, the vibration was caused by failure of the General Service Water inlet control valve for the lube oil coolers.

ATTACHMENT 1 TO 8904140432 PAGE 1 OF 1

William S. Orser
Vice President 10CFR50.73
Nuclear Operations

Fermi 2
6400 North Dixie Highway
Newport, Michigan 48166 Nuclear
(313) 586-5300 Operations

Detroit April 6, 1989
Edison NRC-89-0063

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Reference: Fermi 2
NRC Docket No. 50-341
Facility Operating License No. NPF-43

Subject: Licensee Event Report (LER) No. 89-007-00

Please find enclosed LER No. 89-007-00, dated April 6, 1989, for a reportable event that occurred on March 7, 1989. A copy of this LER is also being sent to the Regional Administrator, USNRC Region III.

If you have any questions, please contact Patricia Anthony at (313) 586-1617.

Sincerely,

Enclosure: NRC Forms 366, 366A

cc: A. B. Davis
J. R. Eckert
R. C. Knop
W. G. Rogers
J. F. Stang

Wayne County Emergency
Management Division

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